

REMARKS

Applicant hereby requests further consideration of the present application in view of the amendments above and the comments that follow.

Applicant requests that the Examiner enter the foregoing amendments. Applicant submits that the amendments place the case in condition for allowance, or, alternatively, in better form for appeal. Claims 1-41 and 54-70 are pending in the application. Claims 1-20, 22, 23, 26, 27, 29-41 and 54-70 are rejected.

I. The Allowed Claims

Applicant acknowledges with appreciation the Examiner's statement in the Office that Claims 21, 24, 25 and 28 are allowed. Action, p. 30.

II. Information Disclosure Statement

The Action alleges that the Information Disclosure Statement filed on February 6, 2007 did not comply with provisions of the MPEP and CFR, because it "did not include a column that provides a space next to each document to be considered for the examiner's initials or a heading that clearly indicates that the list is an information disclosure statement."

Applicant respectfully disagrees, but has resubmitted this listing of references (with three items cited by the Examiner on a Form PTO 892 omitted).

III. Specification

The Action objects to the disclosure for not including the patent number of the patent referenced in the "Related Applications" section. Applicant has amended the specification to update this recitation as requested.

IV. Claim Objection

The Action objects to an informality in line 3 of Claim 27, which has now been corrected.

V. 35 USC §101 Rejections

The Action rejects Claims 7, 65, 67 and 69 for claiming the human body. While applicant disagrees that the features were positively claimed, rather than recited with respect to regions where the device is configured to reside, Applicant has amended these claims as helpfully suggested by the Examiner.

VI. The §102(b) Rejections

The Action opines that new primary reference U.S. Patent No. 4,979,953 to Spence ("Spence") anticipates Claims 1, 2, 4, 6-8, 13,14, 17, 19, 20, 27, 29-35, 37, 39-41, 65 and 66, because Spence describes a cuff assembly with an allegedly "resilient sleeve" 15, 16 and a so-called rib 17 or 42 that inhibits the sleeve from rolling up or down. Applicant respectfully disagrees.

First, contrary to the Action's statement otherwise, the members 15, 16 of Spence do not form a limb-conformable support sleeve; rather, the members 15, 16 are "fabric covers" that expand with the expansion of the inflation chamber or bladder walls 13, 14. In addition the alleged "rib" 17 is a stitched perimeter border strip on the long side of the fabric (which may be nylon) that covers the bladder and is integrally attached thereto. The feature 42 extends along an outer perimeter in a direction similar to the rib features of the instant invention, but is a "tie" that holds the VELCRO strap 41 in closed operative position around a patient's body (col. 3, lines 51-53).

With respect to Claim 1, Applicant submits that the mere fact that the fabric covers 15, 16 are nylon does not mean that they define an inner sleeve that has a body sized and configured to elastically expand to snugly and substantially conformably fit on a limb of a patient prior to expansion of the cuff.

Also, with respect to Claim 34, clearly the fabric covers are not attached at a single short end of the cuff.

Also, the cuff of Spence includes a curved stiffener plate 31 that would appear to inhibit any rolling up or down (Abstract, col. 3, lines 47-50). Applicant respectfully submits that Spence teaches away from the use of a longitudinally extending rib because it does not use a conformable cuff support sleeve and because it includes a stiffener plate member 31 placed between one wall of the bladder and the corresponding fabric member (col. 3, lines 47-48).

Claims 1 and 54 before the instant Amendment recited:

1. An inflatable blood pressure cuff assembly comprising:
an inflatable elongate cuff member having opposing long edges and opposing short edge portions with an inflatable fluid chamber therein; and
a resilient sleeve attached to a respective one of the opposing short edge portions of the inflatable elongate cuff member, wherein the sleeve comprises at least one substantially longitudinally extending rib support member, wherein the sleeve has a body sized and configured to elastically expand to snugly and substantially conformably fit on a limb of a patient prior to inflation of the cuff member whereby the at least one rib is configured to inhibit the sleeve from rolling up and/or down the limb of the patient.

54. An automated blood pressure monitoring system, comprising:
a plurality of inflatable blood pressure cuff assemblies, each sized and configured to accommodate a different patient size range, each cuff assembly comprising an elongate cuff member having opposing long edges and opposing short edge portions with an inflatable fluid chamber therein and a resilient sleeve having a predetermined patient size range that is attachable and/or attached to a respective one of the opposing short edge portions of the inflatable elongate cuff member, wherein the sleeve comprises at least one substantially axially extending rib support member, and wherein the sleeve has a body sized and configured to elastically expand to snugly and substantially conformably fit on a limb of a patient prior to closing the cuff member about the limb of the patient whereby the at least one rib is configured to inhibit the sleeve from rolling up and/or down the limb of the patient;
an inflation unit in fluid communication with a selected one of the blood pressure cuffs and configured to generate a pressure sufficient to restrict blood flow in a selected artery of a patient proximate the sleeve and the blood pressure cuff;

means for releasing the inflation pressure in the blood pressure cuff; and

means for detecting a signal corresponding to blood pressure measurements of the patient.

Applicant respectfully submits that Spence fails to teach at least the recited features; thus, even prior to the present amendments, Claims 1 and 54 and their dependent claims are not anticipated by Spence.

With respect to currently amended Claim 34, Spence fails to teach at least the feature(s) emphasized below.

34. An inflatable blood pressure cuff assembly comprising:
an inflatable elongate cuff member having opposing long edges and opposing short edge portions with a fluid chamber therein, in operation, the short edge portions being configured to wrap about a body portion of a user and connect to each other; and
a resilient sleeve configured to reside under the wrapped cuff member attached to a single one of the short edge portions and extends outwardly from a primary surface of the cuff, wherein the sleeve comprises at least one substantially axially extending rib support member, and wherein at least a major portion of the sleeve is configured to elastically expand to snugly and substantially conformably fit on a limb of a patient.

Applicant submits that Spencer fails to teach or suggest at least the emphasized features in Claims 1, 34 and 54 and that the anticipatory rejection is improper.

VII. The §103 Rejections Based on U.S. Patent No. 4,838,276 to Nagai (Nagai) in view of Spence

The Action rejects Claims 1-3, 5-8, 13, 14, 17-19, 22, 23, 27, 29-36, 39-41, 65 and 66 Nagai in view of Spence.

However, Nagai, like Spence, proposes a flexible fabric band 12 with opposed faces of the fabric 14, 16 across an inflation or pressure cavity 18, which holds a conventional bladder (col. 2, lines 1-9). The Action refers to the fabric faces of the pressure chamber 14,

16 as a flexible "sleeve." The pressure chamber is stitched to form a passage that holds a longitudinally extending loop or buckle 32 (which the Examiner terms a rib) on one outer edge portion thereof. The "rib" 32 is on the cuff band and not on an internal support sleeve. The buckle or metal loop is used to secure the cuff in a closed configuration (col. 2, lines 52-60).

Applicant submits that, even combined, Nagai and Spence fail to teach or suggest the use of an internal cuff support sleeve (inside the wrapped cuff) with at least one anti-roll rib.

However, Applicant has amended Claims 1, 34 and 54 to more clearly recite embodiments of the claimed invention.

Claims 1 and 54 now recite that:

in position, the cuff defines a first closed member and the sleeve defines a second closed member that resides inside the first closed member, attached to the cuff, and wherein the sleeve is adapted to elastically expand about the body portion of the user in a form fitting manner before inflation of the cuff member and elastically compress against the body portion when the cuff member is inflated.

Claim 34 recites that the resilient sleeve is attached to a single one of the short edge portions of the cuff and extends outwardly from a primary surface thereof.

Applicant submits that the claims are patentable for at least the features noted above and that the dependent claims are patentable at least for the patentability of the independent claims and also recite independently patentable subject matter.

VIII. The §103 Rejections Based on U.S. Patent No. 5,513,643 to Suite ("Suite) in view of U.S. Patent No. 3,669,096 to Hurwitz ("Hurwitz")

The Action also rejects Claims 34, 35, 37, 38, 41, 67 and 68 over Suite in view of Hurwitz. Suite proposes a protective flexible rectangular *non-porous wrap* 10 that is used under the cuff to prevent transfer of any kind of liquids, which may be on a person's skin to the cuff. The protective wrap includes VELCRO strips 15 and 16 to secure the wrap in place and is NOT attached to the cuff. The Action considers the closure members 14, 16 or 20, 22 or upper and lower long edges 26a, b to be "ribs."

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Applicant submits that the claims are patentable over Suite and Hurwitz for at least the features noted above with respect to the obviousness rejection over Nagai and Spence.


IX. The §103 Rejections Based on U.S. Patent No. 5,626,142 to Marks ("Marks") in view of Spence, Nagai and Spence or Suite

The Action also rejects claims as being obvious over U.S. Patent No. 5,626,142 to Marks ("Marks") in view of Spence, Nagai and Spence or Suite. However, Marks describes a blood pressure monitoring system with different cuff sizes but fails to remedy the deficiencies of the Spence and Nagai or Suite references for at least the reasons discussed above.

CONCLUSION

Accordingly, Applicant submits that the present application is in condition for allowance and the same is earnestly solicited. The Examiner is encourage to telephone the undersigned at 919-854-1400 for resolution of any outstanding issues.

Respectfully submitted,


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CERTIFICATION OF TRANSMISSION

I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4) to the U.S. Patent and Trademark Office on July 11, 2007.

Signature: 
Rosa Lee Brinson